

LISTS OF SPECIES

Birds (Aves), Serrania Sadiri, Parque Nacional Madidi, Depto. La Paz, Bolivia

Peter Andrew Hosner¹
Kenneth David Behrens²
A. Bennett Hennessey³

¹ University of Kansas, Museum of Natural History, Ecology and Evolutionary Biology, Division of Ornithology.
Dyche Hall, 1345 Jayhawk Blvd., University of Kansas, Lawrence, KS 66046. E-mail: hosner@ku.edu

² Tropical Birding, 1 Toucan Way.
Blouberggrise 7441, South Africa.

³ Asociación Civil Armonía.
Avenida Lomas de Arena, Casilla 3566, Santa Cruz, Bolivia.

Abstract

We surveyed the Serrania Sadiri for birds at elevations between 500-950m for a combined total of 15 days in three different months. The area surveyed was along the Tumupasa/San Jose de Uchupiamones trail at the edge of *Parque Nacional Madidi* in Depto. La Paz, Bolivia. We report observations of 231 species of birds detected by sight and sound, including many outlying ridge specialists. We report and present photographs of a new species for Depto. La Paz (*Caprimulgis nigrescens*), the second Bolivian localities for *Porphyrolaema porphyrolaema*, *Zimerius cinereicapillus*, and *Basileuterus chrysogaster*, and five new species records for *Parque Nacional Madidi*.

Introduction

Foothills and outlying ridges of the Andes are often very difficult or impossible to access. As a result, many of the specialist bird species in these areas are poorly known and some only recently described, and these areas generally have unique and little understood avifaunas (Fitzpatrick and Stotz 1997; Hennessey et al. 2003a). We made several visits to an easily accessible outlying ridge, the Serrania Sadiri in *Parque Nacional Madidi*, a site not previously visited by ornithologists, to conduct preliminary surveys for all bird species.

Materials and methods

Study site

The Serrania Sadiri (Figures 1 and 2) lies within *Parque Nacional Madidi* in Depto. La Paz, Bolivia. The park has an exceptional avian biota (Parker and Bailey 1991) and has one of the largest bird lists in the world for a protected area (Remsen and Parker 1995), covering a range of habitats from lowland Amazonian to high puna grasslands.

From the small village of Tumupasa (14°8'46" S, 67°53'17" W; 400 m a.s.l; Figures 1 and 2), an old trail leads generally southwest over the Serrania Sadiri to the town of San Jose de Uchupiamones (14°12'47" S, 68°03'14" W; 520 m a.s.l). The entrance to *Parque Nacional Madidi* coincides with the crest of the Serrania Sadiri (Point A - 14°10'08" S, 67°55'01" W; 950 m a.s.l), which is where we established camp. We surveyed the portion of the trail from the crest down to a lowland river (Points D - 14°12'40" S, 67°56'35" W; 400 m a.s.l; and Point E - 14°12'25" S, 67°57'04" W; 510 m a.s.l) between the ridge crest and San Jose de Uchupiamones. The Serrania Sadiri is part of a longer outlying ridge of the Andes, approximately 300 km in length, running from Alto Madidi in extreme western Depto. La Paz, connecting to the Serrania Pilon on the other side of the Rio Beni, ending in central Depto. Beni. The Serrania is separated by low lying areas less than 500 m a.s.l from the main chain of the Andes, and therefore has a community of birds that includes many rare or poorly known outlying ridge specialists.

LISTS OF SPECIES



Figure 1. Satellite image of the Serrania Sadiri area. Image from Google Earth version 4.2 (2007), captured on June 2008.

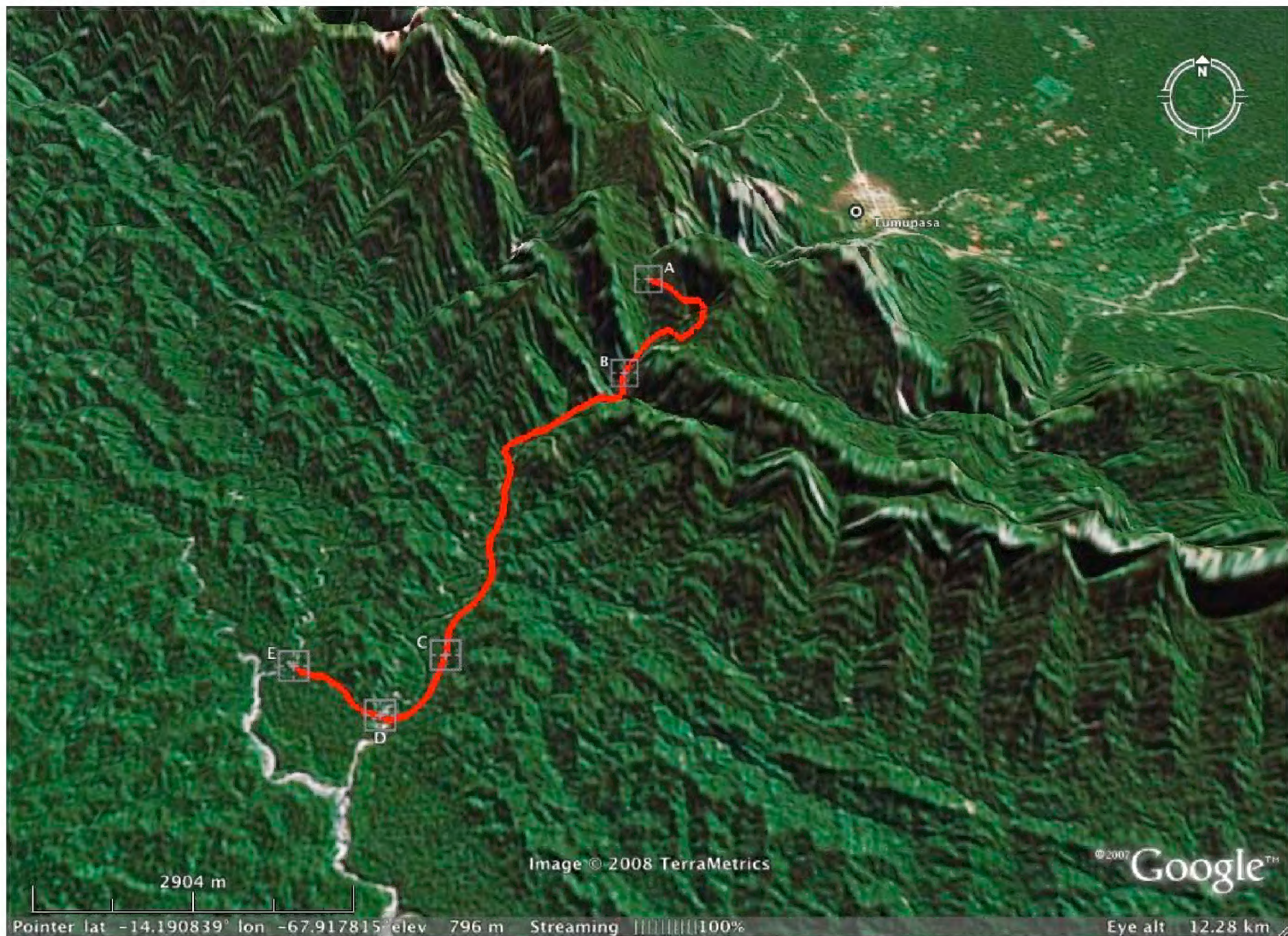


Figure 2. Satellite image of areas on the trail mentioned specifically in the text. A - crest of the Serrania where we made camp, 950 m. B - Open clearing at a landslide at 700 m, where several notable species were recorded. C - This point marks the beginning of the flat lowland forest at 550 m. D - Largest river crossing, and low point on the trail, 490 m. E - Farthest extent of our surveys, 510 m. Image from Google Earth version 4.2 (2007), captured on June 2008.

LISTS OF SPECIES

The habitat is dominated by tall forest (Figures 3 and 4), with the tallest trees well over 30 m in height. Although some logging has apparently occurred inside the park in the past (probably before designation), we saw or heard no evidence of active logging during our visit. Outside of the park, between the crest and Tumupasa, the forest was in good condition but selectively cut, with a lower average height and fewer large trees. On exposed ridge tops, there was stunted forest or shrubby growth (Figure 5). Along the largest river there was a very narrow strip of várzea floodplain forest, including growth of *Generium* cane and *Tesseria*, typical of Amazon tributaries in the region. The trail was wide enough to be passable by motorbike, and creates a significant edge habitat that is often used by mixed flocks of primarily frugivorous canopy bird species. The trail passes through a small landslide area covered with scrubby vegetation and exposed rock (Point B - 14°10'37" S, 67°55'12" W; 710 m a.s.l., Figures 1 and 2). We observed many notable species here, and this area

was also the lowest elevation where we observed many of the foothill species. The slope continued downward until a flat river valley, (Point C - 14°12'25.2" S, 67°56'17" W; 500 m a.s.l.; Figures 1 and 2), where many Amazonian species were found.

Data collection

ABH visited the Serrania Sadiri from 27-29 November 1999. Based on his sightings, PAH, KDB, and Evan W. Obercian decided to revisit the area from 15-19 and 22-26 February 2007, on two separate camping trips. Each day, we made day walks from the ridge crest down towards and sometimes into the lowlands on the way to San Jose. One trip was made before dawn to listen for nocturnal species. Identification of bird voices was confirmed with pre-recorded material (Mayer 2000; Schulenberg 2000; Lysinger et al. 2005). We searched for uncommon species using playback of pre-recorded songs, but made no new recordings due to equipment failure. ABH made a second visit to the area 23-24 August 2008.

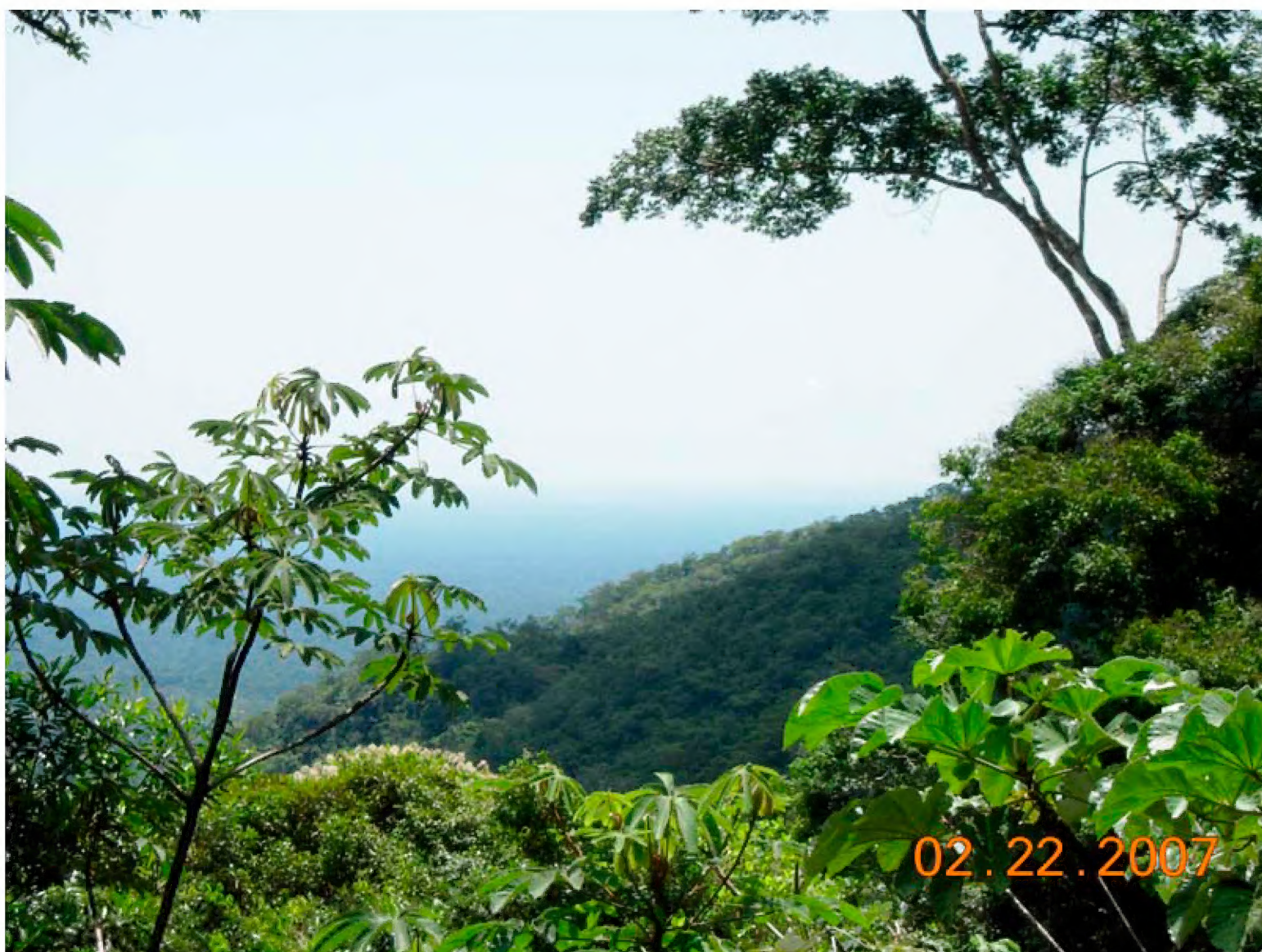


Figure 3. View north towards Amazonia from the Serrania Sadiri ridge crest, 950 m. Photo by K. D. Behrens.

LISTS OF SPECIES



Figure 4. Forested habitat along the trail, 550 m.
Photo by K. D. Behrens.



Figure 5. Sharp ridge covered in stunted forest, 600 m.
Photo by K. D. Behrens.

Results and discussion

We recorded a total of 231 species in 15 days of observation. The foothill avifauna of the Serrania Sadiri is similar to better-known areas farther north in Manu National Park (Walker et al. 2007), and further south along the same ridge in Beni, Bolivia (Hennessey et al. 2003a). Outlying ridge specialists present included *Megascops guatemalae*, *Oxyruncus cristatus*, *Hemitriccus rufigularis*, *Phylloscartes parkeri*, and *Basileuterus chrysogaster*. In addition, there was a well-developed community of more widespread foothill species (*Ara militaris*, *Glaucidium parkeri*, *Pulsatrix melanonota*, *Phaethornis stuarti*, *Malacoptila fulvogularis*, *Zimmerius cinereicapilla*, *Myiornis albiventris*, *Chlorothraupis carmioli*, and *Euphonia mesochrysa*) and foothill species of the Andes that locally occur in hilly terrain in Amazonia (*Tinamus tao*, *Caprimulgus nigrescens*, and *Sclerurus albigularis*).

Significant distributional records include the first *Caprimulgus nigrescens* (Figure 6) in Depto. La Paz (Hennessey et al. 2003b), a range extension of about 300 km from the nearest known Andean population in Cuzco, Peru (Schulenberg et al. 2007). It is previously known in Bolivia only from hilly areas in extreme northern Beni and Santa Cruz (Hennessey et al. 2003b). Also, our observations of *Basileuterus chrysogaster* extend its known range slightly, as the nearest previously known location (and only other Bolivian locality) is the upper Tuichi Valley (Perry et al. 1997). This species has not been detected on the same ridge just to the south in the relatively well-surveyed Pilon-Lajas protected area (Hennessey et al. 2003a), which suggests that the Rio Beni may be the southern boundary of this species' range. Other notable records included *Porphyrolaema porphyrolaema* and *Zimmerius cinereicapilla*, each known in Bolivia (Hennessey et al. 2003b) only from the nearby Chalan Ecolodge (14°25'55" S, 67°55'16" W). First records for Madidi National Park were *Buteo platypterus*, *Caprimulgus nigrescens*, *Phaethorni stuarti*, *Lochmias nematura*, and *Griseotyrannus aurantioatrocristatus*, all of which were expected to occur in the park as they are known from nearby areas, but had yet to be recorded within its boundaries.

LISTS OF SPECIES



Figure 6. Photograph of *Caprimulgus nigrescens* at a rock outcropping at 700m, the first record of this species from Depto. La Paz. Photo by K. D. Behrens.

There is limited legal hunting in the area, and we heard a couple of gunshots in February 2007. Cracids and tinamous seemed uncommon to rare in comparison to sites where they are completely protected, though perhaps their vocal activity varies seasonally (see species accounts). Parrots (including *Ara militaris*) were common and seemed unexploited.

Migration of birds that breed in the northern hemisphere was evident. The numbers of several species seemed to fluctuate or decrease in February 2007, as this is around the time that these birds leave wintering areas in Bolivia. Also, a few species (i.e. *Tyrannus savana*, and a female *Sporophila* sp.) were observed in more forested habitats than they usually occurs, and were probably early austral migrants returning from breeding grounds, and searching for more typical habitat.

Species Accounts

Species that we are less than 100% certain of identities are listed in [brackets]. We have attempted to give rough estimates of relative abundance: Common - multiple individuals

observed on most days. Uncommon - Observed more than twice, but in small numbers and not on most days. Rare - only observed once or twice. All annotations pertain sightings from the longer trips of 15-19 and 22-26 February made by PAH, KDB, and EWO, except when noted. Species only detected in the short November 1999 and August 2008 trips are noted in text. All values before m (meters) refers to altitude in meters above sea level. Taxonomy and species limits are from the American Ornithologists' Union South American Checklist Committee (Remsen et al. 2008).

Tinamus tao, Gray Tinamou. Common in November 2008, but only one individual heard singing at the same location occasionally at dawn and dusk at camp in February 2007 (950 m), so vocal activity may vary seasonally.

Tinamus major, Great Tinamou. Heard once singing just above the landslide clearing at dusk, 700 m.

Crypturellus tataupa, Tataupa Tinamou. A single bird occasionally heard singing from camp (950 m), appeared to be in a large treefall or

LISTS OF SPECIES

landside area near the crest of the ridge. This species is common nearby in pampas edge and deciduous forest in drier valleys, but usually does not inhabit humid tall forest.

Crypturellus obsoletus, Brown Tinamou. Two heard in November 2008, not heard on other trips. Vocal activity may vary seasonally.

Crypturellus soui, Little Tinamou. Single bird heard singing one evening at dusk, 700 m.

Penelope jacquacu, Spix's Guan. Fairly common in small groups from camp at 950 m down to the river, 500 m.

Odontophorus stellatus, Starred Wood-Quail. One pair singing at dawn near the lowland river, 500 m.

Cathartes aura, Turkey Vulture. Relatively rare, with small groups (2-3) seen soaring on sunny days.

Cathartes melambrotus, Greater Yellow-headed Vulture. Probably rare, only a single individual seen.

Sarcoramphus papa, King Vulture. Two seen soaring at 800 m; one in August 2008 and one in November 1999.

Elanoides forficatus, Swallow-tailed Kite. One seen soaring around 600 m in November 2007. Possibly a migrant, as large flocks were observed migrating in Rurrenabaque, Depto. Beni, a few days earlier. One group of 4 seen in August 2008.

Ictinia plumbea, Plumbeous Kite. One seen perched in August 2008 at 800 m.

Accipiter poliogaster, Gray-bellied Hawk. One individual seen soaring on the walk up from Tumupasa at about 600 m. The bird appeared large, long tailed, and broad winged, with pale underparts and wing linings, and dark slate gray above, including the head (excluding the pale throat), with several white tail bands. Also possibly a migrant, as this species has been suggested to be only an austral winter resident in

the northern part of its range (i.e. Ridgely and Greenfield 2001).

Leucopternis albicollis, White Hawk. One individual seen from the landslide clearing on two different days, individually identifiable as its flight feathers were very heavily worn, 700 m.

Buteo platypterus, Broad-winged Hawk. Two individuals seen soaring, apparently migrating northwards. This is (surprisingly) a first record for Parque Nacional Madidi (Hennessey et al. 2003b), though it is widespread in the Andes (Ridgely and Greenfield 2001; Schulenberg et al. 2007).

Buteo brachyurus, Short-tailed Hawk. One light and one dark morph observed soaring on separate days.

Spizaetus tyrannus, Black Hawk-Eagle. Single individual heard calling on the walk up from Tumupasa, 500 m.

Micrastur semitorquatus, Collared Forest-Falcon. One heard calling several times at dusk from camp, 950 m.

Micrastur ruficollis, Barred Forest Falcon. Surprisingly uncommon or unvocal. One heard in February 2007, another heard in November 1999.

Actitis macularius, Spotted Sandpiper. One along the river, 500 m. A migrant or wintering individual.

Patagioenas speciosa, Scaled Pigeon. Single seen perched near the river, and a single observed just outside of Tumupasa, though not heard during our entire stay, suggesting that it was under-recorded.

Patagioenas plumbea, Plumbeous Pigeon. Common throughout the area. The songs seem quite variable here, as some birds sounded more like Amazonian populations (at 500 m near the river) and others sounded more like Andean populations.

Patagioenas subvinacea, Ruddy Pigeon. One heard singing from camp twice, 950 m, heard once at 800 m in November 2008.

LISTS OF SPECIES

Leptotila rufaxilla, Gray-fronted Dove. Commonly heard throughout and occasionally seen walking on the trail.

Geotrygon montana, Ruddy-Quail Dove. One individual occasionally heard singing from camp, 950 m.

Ara militaris, Military Macaw. Common and vocal around camp in February 2007, but not recorded in November 1999 or August 2008. Observed down to the clearing at 700 m generally in flocks of 2-20 birds, and the higher count for a flock was 36 birds. This species appears to be seasonal in the park, as it is in many parts of its range, and it is unknown if they breed at this locality. It is possible that these birds are the same population as the upper Rio Tuichi, which is present there only in the dry season (Perry et al. 1997), when they are apparently absent from Sadiri.

Ara chloropterus, Red-and-Green Macaw. Uncommon, a few seen and heard in the vicinity of the river, below 500 m.

Aratinga leucophthalma, White-eyed Parakeet. One small group flew over camp once, 950 m, one small group down low along the river, 500 m.

Pyrrhura roseifrons, Rose-fronted Parakeet. Fairly common around camp in groups of 15-30 birds, but not observed below 700 m. Formerly included in Painted Parakeet, *P. picta* (Remsen et al. 2008).

Brotogeris cyanoptera, Cobalt-winged Parakeet. One small group flew over in the vicinity of the river, 500 m.

Pionites leucogaster, White-bellied Parrot. Common in small groups in the vicinity of the river below 500 m.

Amazona farinosa, Mealy Amazon. Uncommon, one pair seen and heard at camp, 950 m, another pair near the river, 500 m.

Piaya cayana, Squirrel Cuckoo. Fairly common throughout.

Megascops guatemalae, Vermiculated Screech-Owl. One bird heard singing at camp on the ridge top several nights in February 2008, 950 m, also once in August 2008. Subspecies *napensis*, which is perhaps a valid species but requires further study (Remsen et al. 2008).

Lophostrix cristata, Crested Owl. Probably fairly common, two different individuals heard, one around 800 m and another at camp calling several nights.

Ciccaba huhula, Black-banded Owl. One heard singing at camp, 950 m, in November 1999.

Pulsatrix melanonota, Band-bellied Owl. Common, up to 4 different individuals heard most nights between 700-950 m, including a resident pair at camp.

Glaucidium parkeri, Subtropical Pygmy-Owl. One bird heard calling two nights from camp at the ridgetop, 950m.

Glaucidium hardyi, Amazonian Pygmy-Owl. One heard from the open landslide area, 700 m.

Nyctibius griseus, Common Potoo. One heard from camp, 950 m.

Nyctiphrynus ocellatus, Ocellated Poorwill. one heard in November 1999, 900 m.

Caprimulgus nigrescens, Blackish Nightjar. One pair and a third individual seen almost daily roosting on a log near the clearing (Figure 6), also observed singing there at dusk. This species is known to occur in foothills on the eastern slope of the Andes south to Cuzco (Schulenberg et al. 2007), and is often found around rock outcroppings, so its occurrence here is not completely unexpected, yet it represents a significant range extension. In Bolivia, *C. nigrescens* is known from a separate population in northern Santa Cruz and Beni, but this is the first record for Depto. La Paz and *Parque Nacional Madidi* (Hennessey et al. 2003b).

Streptoprocne zonaris, White-collared Swift. As many as 10 seen, not as common as in many other localities.

LISTS OF SPECIES

Streptoprocne rutila, Chestnut-collared Swift. A single bird in a large flock of *Aeronautes montivagus*.

Chaetura egregia, Pale-rumped Swift. Fifteen or so seen well in a low mixed flock with *Aeronautes montivagus* and *C. cinereiventris* at the river, 500m.

Chaetura cinereiventris, Gray-rumped Swift. Two to 3 in a flock with *Aeronautes montivagus* and *C. egregia* at the river, also 4 *Chaetura* seen from camp at 950 m appeared to be this species in November 2007.

Aeronautes montivagus, White-tipped Swift. The most common swift, with small groups usually in sight (often dozens) at any given time.

Phaethornis malaris, Great-billed Hermit. Common throughout, but difficult to observe.

Phaethornis hispidus, White-bearded Hermit. One seen poorly once near the river, 500 m.

Phaethornis ruber, Reddish Hermit. One seen well feeding and perched near the river, 500 m.

Phaethornis stuarti, White-browed Hermit. Fairly common in foothill zone, 600-950 m, one adult around camp was feeding a fledgling on 15-19 February. This species had not previously been recorded in Parque Nacional Madidi (Hennessey et al. 2003b).

Florisuga mellivora, White-necked Jacobin. A single bird observed in November 1999, 900 m.

Chrysuronia oenone, Golden-tailed Sapphire. One male seen perched at 600 m. A single bird also observed in November 1999.

Chlorostilbon mellisugus, Blue-tailed Emerald. One female observed in August 2008.

Thalurania furcata, Fork-tailed Woodnymph. Fairly common throughout.

Klais guimeti, Violet-headed Hummingbird. Common by voice along open trail in August 2008, not noted in other visits.

Calliphlox amethystina, Amethyst Woodstar. One female feeding in *Cecropia* at the edge of the clearing, 700 m.

Heliothryx auritus, Black-eared Fairy. Probably fairly common, a few seen.

Trogon viridis, White-tailed Trogon. Twice seen at 500 m in mixed flocks.

Trogon collaris, Collared Trogon. Common throughout.

Trogon curucui, Blue-crowned Trogon. Fairly common throughout.

Trogon melanurus, Black-tailed Trogon. Common below 600 m.

Electron platyrhynchum, Broad-billed Motmot. Several heard at 500 m.

Baryphthengus martii, Rufous Motmot. Several heard below 600 m.

Chelidoptera tenebrosa, Swallow-wing. A pair along the river, 500 m.

Nystalus striolatus, Striolated Puffbird. One heard, 500 m.

Malacoptila fulvogularis, Black-streaked Puffbird. Calls heard at camp on two days at 950 m.

Monasa morphoeus, White-fronted Nunbird. Fairly common down low, below 600 m.

Capito auratus, Gilded Barbet. Common throughout, especially in mixed flocks, where 6 or more occurred in a field of view.

Eubucco richardsoni, Lemon-throated Barbet. Fairly common throughout.

Aulacorhynchus prasinus, Emerald Toucanet. Uncommon in foothill zone, 600-950 m.

Pteroglossus mariaae, Brown-mandibled Aracari. One small group of 3-4 birds at 700 m.

LISTS OF SPECIES

Selenidera reinwardtii, Golden-collared Toucanet.
Three small groups seen and heard below 500 m.

Ramphastos tucanus, White-throated Toucan.
Uncommon throughout.

Ramphastos vitellinus, Channel-billed Toucan.
Uncommon throughout.

Picumnus aurifrons, Bar-bellied Piculet. Fairly
common in mixed flocks in the foothill zone, 600-
950 m.

Melanerpes cruentatus, Yellow-tufted
Woodpecker. Uncommon in more disturbed areas
below 700 m.

Veniliornis affinis, Red-stained Woodpecker.
Uncommon in mixed flocks.

Piculus leucolaemus, White-throated
Woodpecker. Fairly common in mixed flocks
throughout.

Celeus flavus, Cream-colored Woodpecker. Single
male in mixed flock, 500 m.

Campephilus rubricollis, Red-necked
Woodpecker. Fairly common below 700 m.

Sittasomus griseicapillus, Olivaceous
Woodcreeper. Uncommon in mixed flocks
throughout, 500 - 950 m.

Deconychura longicauda, Long-tailed
Woodcreeper. Uncommon, one seen and two
heard in flocks in the foothill zone, 700-950 m.

Dendrocincla merula, White-chinned
Woodcreeper. Four seen at an antswarm, 500 m.

Dendrocolaptes certhia, Amazonian Barred
Woodcreeper. One pair at an antswarm, 500 m.

Dendrocolaptes picumnus, Black-banded
Woodcreeper. Two heard in November 1999 at
900 m. Also one *Dendrocolaptes* at an antswarm
at 500 m in February appeared to be this species,
but was not confirmed vocally.

Xiphocolaptes promeropirhynchus, Strong-billed
Woodcreeper. Fairly common but inconspicuous
in foothill forest 700-950 m, the birds here vocally
belong to the Amazonian group (Mayer 2000;
Schulenberg 2000).

Xiphorhynchus ocellatus, Ocellated Woodcreeper.
One heard in November 1999.

Xiphorhynchus elegans, Elegant Woodcreeper.
Common throughout.

Xiphorhynchus guttatus, Buff-throated
Woodcreeper. Common down low around 500 m,
but not recorded any higher in February 2007,
however one was heard at 900 m in August 2008.

Lepidocolaptes albolineatus, Linneated
Woodcreeper. Observed in mixed canopy flocks
throughout, probably fairly common but
inconspicuous.

Xenops minuta, Plain Xenops. Observed in mixed
flocks throughout, probably fairly common.

Xenops rutilans, Streaked Xenops. A single in a
mixed flock at camp, 950 m.

Hyloctistes subulatus, Eastern Woodhaunter.
Three seen in mixed flocks from 500-900 m
probably fairly common.

Ancistrops strigilatus, Chestnut-winged Hookbill.
A couple in flocks throughout, uncommon, but
appeared much more common down low around
500 m.

Philydor erythropterum, Chestnut-winged
Foliage-gleaner. Single seen fairly well and
confirmed vocally, 500 m.

Philydor erythrocercum, Rufous-rumped Foliage-
gleaner. One seen in flock near camp at 900 m
and confirmed vocally (Schulenberg 2000) as the
foothill subspecies *P. e. ochrogaster*. As *P. e.*
ochrogaster is locally sympatric and presumably
does not interbreed with *P. e. lyra* in Peru
(Schulenberg et al. 2007), *P. e. ochrogaster* is
likely a valid species.

LISTS OF SPECIES

Philydor ruficaudatum, Rufous-tailed Foliage-gleaner. Two seen fairly well in a large mixed flock at 500 m. The bird was not heard, but the rump appeared plain.

Automolus ochrolaemus, Buff-throated Foliage-gleaner. Common and vocal below 500 m, occasionally higher (one at 900 m in August 2008).

Lochmias nematura, Sharp-tailed Streamcreeper. Heard along streams at 500 m and 900 m, but seemed uncommon considering the numerous of small streams and adequate habitat. There are no previous records of this species for Parque Nacional Madidi (Hennessey et al. 2003b), so perhaps this species occurs sparsely in the area.

Sclerurus albigularis, Gray-throated Leaf-tosser. Single bird heard at 800 m.

Cymbilaimus lineatus, Fasciated Antshrike. Uncommon throughout, though seemed to vocalize very infrequently, as about as many were seen as heard (usually this species is much easier to detect vocally).

Thamnophilus schistaceus, Plain-winged Antshrike. A couple heard at, 500 m, near mixed flocks.

Thamnomanes ardesiacus, Dusky-throated Antshrike. One in a mixed flock, 500 m.

Dysithamnus mentalis, Plain Antvireo. Surprisingly uncommon, only a few seen and heard in foothill zone, 700 – 900 m.

Epinecrophylla leucophthalma, White-eyed Antwren. A pair of *Epinecrophylla* at 500 m appeared to be this species, though were seen only briefly and not heard.

Myrmotherula menetriesii, Gray Antwren. Single male in a mixed understory flock with *M. axillaris*, 500 m.

Myrmotherula axillaris, White-flanked Antwren. Two to three in a flock with the *M. menetriesii*, also a couple others in mixed understory flocks. Probably fairly common around 500 m.

Herpsilochmus rufimarginatus, Rufous-winged Antwren. Fairly common to common (especially vocally) above 700 m in mixed flocks.

Cercomacra cinerascens, Gray Antbird. Two observed in November 1999, 900 m.

Cercromacra serva, Black Antbird. Only one heard at 800 m, surprisingly uncommon at this site.

Pyriglena leuconota, White-backed Fire-eye. Two observed in November 2008, 900 m.

Myrmoborus myotherinus, Black-faced Antbird. Common throughout, the second most common antbird after *Myrmeciza hemimelaena*.

Schistocichla brunneiceps, Brownish-headed Antbird. Uncommon along streams, 2-3 pairs seen and heard at 500-700 m. This taxon was recently elevated to species status based on voice and distribution by Isler et al. (2007), split from *S. leucostigma*. *S. brunneiceps* is endemic to the foothills of Peru and Bolivia.

Myrmeciza hemimelaena, Chestnut-tailed Antbird. Common throughout; most common *Thamnophilid*.

Myrmeciza fortis, Sooty Antbird. One pair at an *Eciton burchellii* antswarm, 500 m.

Willisornis poecilinotus, Scale-backed Antbird. Uncommon in understory throughout, ssp. *gutturalis*.

Rhegmatorhina melanosticta, Hairy-crested Antbird. At least 4 at an *Eciton burchellii* antswarm, 500 m.

Phlegopsis nigromaculata, Black-spotted Bare-eye. One heard in the limited *várzea* area, 500 m.

Formicarius colma, Rufous-capped Antthrush. Single seen walking on trail at 500 m at dawn. Surprisingly, none were heard.

Formicarius analis, Black-faced Antthrush. Common throughout, especially vocal at camp, at 950 m.

LISTS OF SPECIES

Myrmothera campanisona, Thrush-like Antpitta. Fairly common by voice around 500 m.

Ampelioides tschudii, Scaled Fruiteater. Recorded only in November 1999, one individual heard at 800 m, and a second heard and seen at 900 m. This species is difficult to detect unless singing, it was probably overlooked in February 2007. *Ampelioides tschudii* is very poorly known in Bolivia, and has only been recorded at four sites (Hennessey et al. 2003a).

Oxyruncus cristatus, Sharpbill. Uncommon to fairly common throughout. Inconspicuous and not very vocal, but usually detected 1-2 times per day in mixed flocks in foothill zone 700-950 m, most often close to camp at the ridge crest.

Lipaugus vociferans, Screaming Piha. Common throughout, heard commonly but also seen much more frequently than typical at lowland sites, usually in mixed flocks.

Laniocera hypopyrra, Cinereous Mourner. Two heard singing, 500 m.

Schiffornis turdinus, Thrush-like Schiffornis. A single individual heard almost daily from camp at the crest of the ridge, 950 m, ssp. *steinbachi*.

Porphyrolaema porphyrolaema, Purple-throated Cotinga. A single female seen very well in a large mixed flock at 500 m. According to Hennessey et al. (2003b), this is the second record for Bolivia. The first report was from the nearby Chalalan Lodge.

Querula purpurata, Purple-throated Fruitcrow. A pair seen and heard at 700 m, several other pairs lower.

Lepidothrix coronata, Blue-crowned Manakin. Not vocal when the area was visited. Three to 4 seen, yet the species was only heard once the whole time, which suggests that they are common here, but were under-recorded.

Pipra chloromeros, Round-tailed Manakin. Common throughout. Several leks located just off of the trail a couple kilometers below camp.

Machaeropterus pyrocephalus, Fiery-capped Manakin. 2-3 males heard, 500 m.

Tyranneutes stolzmanni, Dwarf Tyrant-Manakin. One heard at 500 m.

Piprites chloris, Wing-barred Piprites. Uncommon (by voice) in mixed flocks throughout.

Ornithion inerme, White-lored Tyrannulet. A single in a mixed flock 700 m, 1-2 heard 650 m, probably fairly common but inconspicuous in flocks throughout.

Tyrannulus elatus, Yellow-crowned Tyrannulet. A couple singing near the river, 500 m.

Myiopagis gaimardii, Forest Elaenia. Seen and heard in mixed flocks to 700 m, probably common.

Mionectes oleagineus, Ochre-bellied Flycatcher. Fairly common in mixed flocks throughout.

Leptopogon amaurocephalus, Sepia-capped Flycatcher. Uncommon to rare throughout.

Phylloscartes parkeri, Cinnamon-faced Tyrannulet. Common in flocks (by voice) in foothill zone, especially around the landslide clearing at 700 m.

Zimmerius gracilipes, Slender-footed Tyrannulet. Heard in November 1999, 500 m.

Zimmerius cinereicapilla, Red-billed Tyrannulet. Probably rare, two sightings (one brief and unconfirmed, the other was seen well and responded with full song to pre-recorded material from Peru), 800-900 m. The only other Bolivian record is from Chalalan Lodge (Mayer 2000).

Myiornis albiventris, White-bellied Pygmy-tyrant. One recorded by voice twice near camp, 950 m, but seems rare at this site.

Myiornis ecaudatus, Short-tailed Pygmy-tyrant. A few pairs seen and heard below 700 m, probably fairly common.

LISTS OF SPECIES

Hemitriccus ruficularis, Buff-throated Tody-tyrant. Seems rare but possibly just difficult to detect. A single individual was heard twice and seen once in a small tree-fall gap with vine tangles 200 m from the ridge crest. This area was passed by at least 20 times during our surveys, and the bird was only detected twice.

Hemitriccus griseipectus, White-bellied Tody-tyrant. Single bird heard calling, 500 m.

Todirostrum chrysocrotaphum, Golden-browed Tody-Flycatcher. Observed in November 1999, 500 m.

Tolmomyias assimilis, Yellow-margined Flycatcher. Uncommon, a few heard and seen below 700 m.

Tolmomyias poliocephalus, Gray-crowned Flycatcher. Single seen and heard in várzea, 500 m.

Tolmomyias flaviventris, Yellow-breasted Flycatcher. Single heard near the river, 500 m.

Platyrinchus coronatus, Golden-crowned Spadebill. One pair seen and heard at 500 m.

Terenotriccus erythrurus, Ruddy-tailed Flycatcher. One near the river, 500 m.

Lathrotriccus euleri, Euler's Flycatcher. Common by voice in the foothill zone, 600-950 m.

Contopus cooperi, Olive-sided Flycatcher. Single wintering bird perched on snags at 700 m.

Contopus sordidulus, Western Wood-Pewee. Fairly common (by voice) in foothill zone, 600-950 m. All seemed to have disappeared by the late February visit, perhaps headed north.

Contopus virescens, Eastern Wood-pewee. Fairly common (by voice) throughout.

Ochthornis littoralis, Drab Water-Tyrant. One pair on the river, 500 m.

Attila spadiceus, Bright-rumped Attila. Common by voice throughout.

Rhytipterna simplex, Grayish Mourner. Single bird heard in mixed flock, 500 m.

Myiarchus ferox, Short-crested Flycatcher. Single bird in riverside vegetation, 500 m.

Myiozetetes similis, Social Flycatcher. Pair in riverside vegetation, 500 m.

Myiozetetes granadensis, Gray-capped Flycatcher. Pair in riverside vegetation, 500 m.

Myiodynastes maculatus, Streaked Flycatcher. Only a couple in areas with a lot of edge, below 700 m.

Myiodynastes luteiventris, Sulphur-bellied Flycatcher. Found throughout, uncommon but more numerous than *maculatus*. A non-breeding visitor in Bolivia.

Legatus leucophaeus, Piratic Flycatcher. Single heard in riverside vegetation, 500 m.

Griseotyrannus aurantioatrocristatus, Crowned Slaty Flycatcher. Early austral migrant in large dead snag, 500 m. There are no previous records of this species in Parque Nacional Madidi (Hennessey et al. 2003b).

Tyrannus tyrannus, Eastern Kingbird. A few observations in second growth and near the river, 500 m.

Tyrannus savana, Fork-tailed Flycatcher. A single early austral migrant in open area along the river, 500 m.

Tyrannus melancholicus, Tropical Kingbird. One pair around the clearing, 700 m, and present in riverside vegetation, 500 m.

Pachyramphus minor, Pink-throated Becard. Uncommon in flocks throughout.

Pachyramphus marginatus, Black-capped Becard. One singing at dawn, 500 m.

Tityra semifasciata, Masked Tityra. One pair in mixed flock at camp, 950 m.

LISTS OF SPECIES

Cyanocorax violaceus, Violaceous Jay. One seen twice by the river with a large mixed flock of 3 species of *Psarocolius* and one *Cacicus haemorrhous*. In La Paz, it was previously known only at Alto Madidi (Parker and Bailey 1991). Responded very well to tape playback, perhaps a wandering individual slightly outside normal range.

Hylophilus hypoxanthus, Dusky-capped Greenlet. Common in flocks (by voice) throughout.

Hylophilus ochraceiceps, Tawny-crowned Greenlet. Common in vine tangles in understory, 500-950 m.

Vireolanius leucotis, Slaty-capped Shrike-Vireo. Common (by voice) in flocks throughout.

Vireo olivaceus, Red-eyed Vireo. Abundant throughout. Subspecies of individuals unknown, but given time of year probably wintering *olivaceus*.

Vireo flavoviridis, Yellow-green Vireo. Fairly common throughout, but not as numerous as *V. olivaceus*.

Thryothorus genibarbis, Moustached Wren. Uncommon, one pair in riverside vegetation, two more in second growth, 500 m.

Microcerculus marginatus, Southern Nightingale-Wren. Common (by voice) throughout. The birds here pertain to the widespread vocal group that exists south of the Amazon.

Turdus albicollis, White-necked Thrush. Three heard singing at 500 m.

Turdus ignobilis, Black-billed Thrush. One singing in riverside vegetation, 500 m.

Catharus ustulatus, Swainson's Thrush. Common to abundant between 700-950m. Also observed in November 1999. These birds are migrants or wintering visitors.

Parula pitiayumi, Tropical Parula. Fairly common in flocks between 700-950m.

Myioborus miniatus, Slate-throated Redstart. Uncommon or rare, only 2-3 seen or heard in mixed flocks around the crest of the ridge, 900-950 m.

Basileuterus bivittatus, Two-banded Warbler. Abundant in pairs in understory flocks between 600-950 m.

Basileuterus chrysogaster, Golden-bellied Warbler. Uncommon and inconspicuous in understory flocks, 500-950 m. Natural song only heard once, though they responded weakly to playback of *B. chrysogaster* as well as of *Basileuterus culicivorus*, the only other possibility at this locality, though *B. culicivorus* typically occurs in forest patches in savanna in this region. Songs given by all birds sounded like *B. chrysogaster* (Schulenberg 2000), though some birds appeared to have a whitish eyebrow like *B. culicivorus*. Known from one locality in Bolivia; from the upper Tuichi in Parque Nacional Madidi (Perry et al. 1997). This is a very slight range extension for the species.

Phaeothlypis fulvicauda, Buff-rumped Warbler. Fairly common along streams throughout, including near camp. Every individual we observed had a distinctive buff rump. There has been confusion about the distribution of this species and *P. rivularis* in this area (Hennessey et al. 2003a).

Lamprospiza melanoleuca, Red-billed Pied Tanager. Fairly common in mixed canopy flocks in the lowlands, up to five in a single flock, but only below 500 m.

Hemithraupis guira, Guira Tanager. Fairly common in mixed canopy flocks, but in lower numbers (often a single pair in a flock) than many of the other tanagers.

Hemithraupis flavicollis, Yellow-backed Tanager. Apparently uncommon, several seen in mixed canopy flocks.

Lanio versicolor, White-winged Shrike-Tanager. Fairly common in mixed flocks (especially by call

LISTS OF SPECIES

note), but generally in small numbers (2-3 in a flock when present).

Chlorothraupis carmioli, Carmioli's Tanager. Abundant in understory (especially by song), particularly along streams, sometimes in mixed flocks, from 600-950 m. The song was given only at dawn and dusk, but very vocal during these times.

Tachyphonus rufiventer, Yellow-crowned Tanager. Uncommon and present in low numbers in mixed flocks in the foothill zone (usually no more than one in a flock when present), between 600-950 m.

Habia rubica, Red-crowned Ant-Tanager. Fairly common in understory throughout.

Piranga flava, Hepatic Tanager. Uncommon and in small numbers (often pairs) in flocks in foothill zone, 600-950 m.

Piranga olivacea, Scarlet Tanager. Very common in mixed flocks, often five or more present per flock. During the late February visit, their numbers appeared to be much reduced; perhaps many had pulled out to migrate north. Most males (which greatly outnumbered females) were in spectacularly fresh alternate plumage, while some retained yellow, especially on the belly.

Piranga rubra, Summer Tanager. Very common, and like *P. olivacea*, seemed to have largely left by the late February visit. A mixture of male plumages; fewer fully alternate males than in *P. olivacea*.

Ramphocelus carbo, Silver-beaked Tanager. Common in more open areas such as along the river, 500 m.

Thraupis palmarum, Palm Tanager. A single individual seen in palms in the clearing at camp, 950 m.

Tersina viridis, Swallow Tanager. Pair in riverside vegetation, 500 m.

Tangara nigrocincta, Black-masked Tanager. Abundant throughout, as many as 10 seen per flock.

Tangara chilensis, Paradise Tanager. Abundant throughout, as many as 20 per flock. It is the dominant *Tangara* in most foothill flocks.

Tangara schrankii, Green-and-gold Tanager. Only recorded to 700 m, but below 500 m, the most common *Tangara*, (one flock contained over 30 individuals).

Tangara xanthogastra, Yellow-bellied Tanager. Found in mixed flocks throughout, though one of the least numerous species of *Tangara*. As many as five individuals in a flock.

Tangara gyrola, Bay-headed Tanager. Found throughout, though much more common from 500-700 m, where one of the most common *Tangara*, with as many as 10 per flock.

Tangara mexicana, Turquoise Tanager. Common throughout, as many as 10 per flock.

Tangara velia, Opal-rumped Tanager. Probably uncommon, three in a mixed flock at 500 m.

Dacnis lineata, Black-faced Dacnis. Fairly common in flocks throughout, though usually in low numbers (mostly pairs).

Dacnis flaviventer, Yellow-bellied Dacnis. Two seen in mixed flocks below 500 m.

Dacnis cayana, Blue Dacnis. The most numerous *Dacnis*. Fairly common throughout, but in small numbers (2-3) per flock.

Cyanerpes caeruleus, Purple Honeycreeper. Uncommon throughout, in small numbers per flock.

Cyanerpes cyaneus, Red-legged Honeycreeper. Uncommon throughout; small numbers per flock. This species has only recently been found in La Paz (Perry et al. 1997).

LISTS OF SPECIES

Chlorophanes spiza, Green Honeycreeper. Uncommon throughout; small numbers in mixed species flocks.

Sporophila sp., Seedeater. A single female-plumaged bird present in the trail at 600 m had a small bill, so probably not *Sporophila schistacea*. Perhaps a dispersing bird from edges or savannas.

Ammodramus aurifrons, Yellow-browed Sparrow. One singing along the river, 500 m.

Arremon taciturnus, Pectoral Sparrow. Several seen in undergrowth throughout, probably fairly common but easy to overlook.

Saltator maximus, Buff-throated Saltator. Fairly common throughout.

Parkerthraustes humeralis, Yellow-shouldered Grosbeak. Fairly common in flocks, especially in more open areas, from 600-950 m. Sometimes with mixed species flocks, other times small single species flocks.

Cyanocompsa cyanoides, Blue-black Grosbeak. Fairly common in forest understory, 500-900 m.

Icterus cayanensis, Epaulet Oriole. Common in mixed flocks throughout, often 3-4 birds in a flock when present. Often perch on dead snags and branches for singing.

Cacicus cela, Yellow-rumped Cacique. Common in the vicinity of the river, below 500 m.

Cacicus haemorrhous, Red-rumped Cacique. Single bird with a large 3 species *Psarocolius* flock, 500 m.

Psarocolius decumanus, Crested Oropendula. Ten in large 3 species *Psarocolius* flock, 500 m.

Psarocolius angustifrons, Russet-backed Oropendula. Fifty in large 3 species *Psarocolius* flock, 500 m.

Psarocolius bifasciatus, Amazonian Oropendula. Twenty in large *Psarocolius* flock, 500 m.

Euphonia mesochrysa, Bronze-green Euphonia. Two to 3 pairs seen and identified by voice, in foothill zone 600-950 m, probably more common than these records indicate.

Euphonia chrysopasta, White-lored Euphonia. Fairly common below 700 m, probably replacing *Euphonia mesochrysa*.

Euphonia minuta, White-vented Euphonia. Uncommon throughout in flocks.

Euphonia rufiventris, Rufous-vented Euphonia. Fairly common throughout in flocks.

Euphonia lanirostris, Thick-billed Euphonia. Uncommon throughout.

Euphonia xanthogaster, Orange-bellied Euphonia. Single in mixed flock below camp, 800 m.

Acknowledgements

We would like to thank the Park Guards of *Parque Nacional Madidi* for allowing us to camp at the entrance guard post, and to the people of San Jose for allowing our stay. Joe Tobias provided comments on the significance of several sightings. We would also like to thank two reviewers, Marcelo Ferreira de Vasconcelos and Ross MacLeod for insightful comments on the manuscript.

Literature cited

Fitzpatrick J. W. and D. F Stotz. 1997. A new species of tyrannulet (*Phylloscartes*) from the Andean foothills of Peru and Bolivia. *Ornithological Monographs* 48: 37-46.

Google Earth version 4.2. 2007. Accessible at www.earth.google.com/ Google Inc., Mountain View, California, USA.

Hennessey, A. B., S. K. Herzog, M. Kessler, and D. Robinson. 2003a. Avifauna of the Pilon Lajas

LISTS OF SPECIES

- Biosphere Reserve and Communal Lands, Bolivia. Bird Conservation International 13(4): 319-349.
- Hennessey, A. B., S. K. Herzog, and F. Sagot. 2003b. An annotated list of the birds of Bolivia. Fifth Ed. Asociación Armonía, Santa Cruz. 238p.
- Isler, M. L., P. R. Isler, B. M. Whitney, and K. J. Zimmer. 2007. Species limits in the "*Schistocichla*" complex of *Percnostola* antbirds (Passeriformes: *Thamnophilidae*). Wilson Journal of Ornithology 119(1): 53-70.
- Lysinger, M., J. V. Moore, N. Krabbe, P. Coopmans, D. Lane, L. Navarrete, and R. S. Ridgely. 2005. Birds of Eastern Ecuador I: Foothills and lower subtropics. John V. Moore Nature recordings, San Jose, California. 5 CD set.
- Mayer, S. 2000. Birds of Bolivia 2.0. Birdsongs International, Westernland. CD-ROM.
- Parker, T.A. and B. Bailey. 1991. A biological assessment of the Alto Madidi region and adjacent areas of northwest Bolivia. RAPWorking Papers 1. Conservation International, Washington D C. 113p.
- Perry, A., M. Kessler and N. Helme. 1997. Birds of the Rio Tuichi Valley, with emphasis on dry forest, Parque Nacional Madidi, Depto. La Paz, Bolivia. Ornithological Monographs 48: 557-576.
- Remsen, J. V., A. Jaramillo, M. Nores, J. F. Pacheco, M. B. Robbins, T. S. Schulenberg, F. G. Stiles, J. M. C. da Silva, D. F. Stotz, and K. J. Zimmer. 2008. A classification of the bird species of South America. Accessible at www.museum.lsu.edu/~Remsen/SACCBaseline.html South American Checklist Committee of the American Ornithologists' Union. Captured on 9 December 2008.
- Remsen, J.V., and Parker, T.A. 1995. Bolivia has the opportunity to create the planet's richest park for terrestrial biota. Bird Conservation International 5: 181-199.
- Ridgely, R. S. and P. J. Greenfield. 2001. Birds of Ecuador. 2001. Cornell University Press, Ithaca, NY. 740p.
- Schulenburg, T. S. 2000. Voices of Andean Birds, Vol. 1 and 2: Macaulay Library of Natural Sounds, Ithaca, NY. 2 CD set.
- Schulenberg, T. S., D. F. Stotz, D. F. Lane, J. P. O'Neil, and T. A. Parker. 2007. Birds of Peru. Princeton University Press, Princeton, NJ. 656p.
- Walker, B., D. F. Stotz, T. Pequeno, and J. W. Fitzpatrick. 2006. Birds of the Manu Biosphere Reserve. Fieldiana Zoology 110: 23-39.

Received December 2008

Accepted April 2009

Published online May 2009